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ABSTRACT

The Texas Centers for Professional Development and Technology (CPDT) study gathered evaluative data about the progress and contribution of the centers toward their goal of systematic change in teacher preparation and student learning during four years of funding (1992-93 through 1995-96). The 21 centers in the sample included 35 universities, 15 educational service centers, and 113 school districts affecting more than 300,000 students, 19,000 teachers, and 12,000 preservice teachers. Major findings of the study included: (1) CPDT graduates hired as first year teachers entered into the school environment more successfully than typical first-year teachers; (2) professional development school mentor teachers reported more input into university course instruction and evaluation of preservice teachers, and more collaboration between university and school district personnel; (3) restructuring of teacher preparation from campus-based to field-based programs promoted collaborative efforts between university and school personnel and resulted in an 184 percent increase in field-based hours for elementary levels and 142 percent increase for secondary levels; and (4) the CPDT centers provided a tremendous amount of inservice and preservice professional development training. Total attendance at more than 6,000 scheduled training sessions was over 120,000 participants, including over 14,000 classroom teachers. Training covered technology, learning strategies, leadership/collaboration, management/discipline, subject matter content, and diversity/inclusion. It is predicted that successful restructuring of teacher preparation will lead to institutionalization of the CPDT collaborative, field-based approach. (ND)

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Centers for Professional Development and Technology

State-Wide Evaluation Study

FINAL SUMMARY REPORT

Prepared for the

Texas State Board for Educator Certification

Austin, Texas

by
Macy Research Associates
Wills Point, Texas

December 1996

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CPDT STATE-WIDE EVALUATION STUDY

FINAL SUMMARY REPORT

Prepared for the Texas State Board for Educator Certification

Austin, Texas

By:

Macy Research Associates

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ACKNOWLEDGEMENTS

We at Macy Research Associates wish to express our sincere gratitude to the many individuals who contributed to the successful completion of the CPDT State-Wide Evaluation Study.

The following lists members of the study advisory committee. These individuals met in August 1996 and recommended potential areas for studying the impact of the CPDT Centers. Members also provided input about logistical factors and issues relevant to conducting the study.

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Officials of the State Board for Educator Certification also provided input and suggestions. These included:

Dr. Mark Littleton, Executive Director

Dr. Bill Wale, Director of Educator Preparation and Certification

Dr. Nanette Glynn, Director of Programs

Other state staff also assisted in providing CPDT report documents and information from state computer files. These included Mary Gawron, Director of Programs; Leslie Sanders, Certification Specialist; Dr. Omar Lopéz, Data Analyst. Dr. Lopéz also provided helpful suggestions regarding EXCET score access and interpretation. Dr. Alejandro Ajuria, formerly with the State Board for Educator Certification, provided additional insight in interpreting information contained in the Centers' report documents.

We also wish to express our gratitude and appreciation to all CPDT directors and staff who helped make the study possible. A study of this magnitude would not have been possible without their cooperation and support.

ADDITIONAL REPORT COPIES

To obtain further information about the study or to request additional copies of this report document, contact Dr. Daniel Macy or Glenn Greenwood.

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CENTERS FOR PROFESSIONAL DEVELOPMENT AND TECHNOLOGY

STATE-WIDE STUDY

EXECUTIVE SUMMARY

The purpose of the state-wide CPDT study was to gather evaluative data about the progress and contributions of the centers toward their goal of systematic change in teacher preparation and student learning. The sample studied included a total of 21 centers and four years of funding (1992-93 through 1995-96). Data sources included reports to the state funding agency, ad hoc reports from center personnel, telephone interview of school principals, and state data bases.

One should note that the results provide a picture of the CPDT centers from a state-level view. A particular center or centers may have been outstanding in a selected programmatic area (e.g., mentor development or design/implementation of field-based course work), while other centers may have been outstanding in different areas. A state-level study, such as the current study, will not necessarily describe exemplary practices or programmatic features instituted by selected individual centers.

Summary of Major Findings

- The 21 centers included 35 universities, 15 educational service centers, and 113 school districts; affecting more than 300,000 children, 19,000 teachers, and 12,000 preservice teachers.

EXECUTIVE SUMMARY - cont.

- A telephone survey of school principals found that 100% reported that CPDT graduates (hired as first-year teachers) had entered into the school environment more successfully than typical first-year teachers. Almost all sampled principals (90%) also reported that CPDT graduates were more confident, provided better instruction, and compared favorably to more experienced teachers; 79% reported that CPDT graduates had better discipline/classroom management than typical first-year teachers. Comments from principals were very positive.

- Benefits reported by PDS mentor teachers in almost all centers included input into university course instruction, input into evaluation of preservice teachers, and more collaboration between universities and school district personnel. Reports of increased confidence in preservice teachers were evident from a large majority of centers, as well as increased instructional competence and professional competence.

- Restructuring of teacher preparation to collaborative, field-based programs promoted intensive collaborative effort between university and school personnel and resulted in dramatic transition from university campus-based course work to field-based course work in the schools (184% increase in field-based hours for the elementary level and 142% increase for the secondary level). Collaborative planning and implementation included more than 600 formal planning/management groups, and almost two-thirds (64%) of all personnel involved were school district personnel.

- There were more than 600 formal collaborative planning/ management groups reported during the 4-year study period. About one-third (30%) of all formal collaborative groups dealt with planning and implementing field-based teacher preparation.

Almost two-thirds (63%) of all personnel involved in the collaborative groups were school district personnel.

- The study identified 47 unique policies/procedures implemented by CPDT centers to support restructured teacher preparation (e.g. using school district inservice days for CPDT staff development). Of the 47 policies/procedures, one-half focused on the university environment, and one-half focused on the school district environment.

- Successful restructuring of teacher preparation will ultimately lead to institutionalization of the CPDT collaborative, field-based approach. Results indicated that institutionalization of CPDT teacher preparation was moving toward completion. In 76% of the 17 centers in cycles one, two, and three, 100% of the preservice teachers were enrolled in the CPDT program. Inspection of policies/procedures implemented to support restructuring found that policies/procedures were generally still in force in December 1996. However, the extent of progress toward institutionalization varied among centers.

- Definitive conclusions regarding ExCET performance of CPDT students are dependent on in-depth investigation of ExCET scores. The current study included only estimated patterns of ExCET performance and possibly under-estimated any effects attributable to CPDT centers. Estimated patterns of ExCET performance between CPDT and non-CPDT student groups may have suggested that Hispanic students in CPDT programs scored higher than those in non-CPDT programs, while similar estimated patterns for African-American students were mixed. Estimated patterns for Anglo students showed no difference between CPDT and non-CPDT groups.

EXECUTIVE SUMMARY - cont.

- The CPDT centers provided a tremendous amount of professional development training, both inservice and preservice. Total attendance at more than 6,000 scheduled training sessions was more than 120,0000 participants, and over 14,000 individual classroom teachers received training during the 4-year study period. Training content included technology, learning strategies, leadership/collaboration, management/discipline, subject matter content, diversity/inclusion, among others. The average cost of training per person per session was $28.

- The centers provided technology training to 17,000 educators, including more than 8,000 classroom teachers, 7,000 preservice teachers, 900 university faculty, and 650 school administrators. Total attendance in technology training was more than 54,000 participants.

- The CPDT centers purchased and installed extensive computer hardware and software, including multi-media, telecommunications, distance learning facilities, printers, scanners, video equipment, and more. Software included a wide variety of applications in many subject areas. About three-fourths (74%) of the 4,432 computer stations were installed in public schools, and about one-fourth in universities (23%). Technology was generally installed in classrooms, labs, and libraries.

- Teachers used technology for lesson planning, record keeping, developing instructional materials, accessing information, and communication. Public school students used technology for special reports/presentations, communication with students in other parts of the world, and for access to information data bases.

EXECUTIVE SUMMARY - cont.

- Classroom teachers presented staff development sessions and information/training sessions at regional and national conferences (in some cases, preservice teachers as well). Numerous teachers pursued professional advancement including advanced degrees and administrator certification, and selected teachers attained management/leadership positions.

- The centers obtained non-CPDT grants totaling 35.2 million, which was 88% of the 40.2 million initially invested in the centers. Sixty-two percent of the 35.2 million was from sources other than state tax revenue.

Overview of the Study

The state-wide CPDT evaluation study included 21 Centers for Professional Development and Technology (CPDT). The major purpose of the study was to gather evaluative data regarding the progress and contributions of the CPDT centers toward their goal of systematic change in teacher preparation and student learning.

Centers included in the study were:

Cycle One (initial funding year 1992-93)

- Southwest Texas CPDT (San Macros)
- SFA CPDT (Nacogdoches)
- Northeast Texas CPDT (Commerce)
- Texas Education Collaborative (College Station)
- CEDE (San Antonio)
- UNT CPDT (Denton)
- Regional Collaborative (Laredo)
- Panhandle South Plains CPDT (Lubbock)

Cycle Two (initial funding year 1993-94)

- El Paso CPDT (El Paso)
- Big Country CPDT (Abilene)
- CREST (Arlington)
- TEA^{3}M CPDT (Houston Clear Lake)
- Houston Consortium of Urban PDT (Houston)
- Spindletop CPDT (Beaumont)

Overview of the Study - cont.

Cycle Three (initial funding year 1994-95)

Permian Basin CPDT (Odessa)

University of Houston-Victoria CPDT (Victoria)

Lower Valley CPDT (Brownsville)

Cycle Four (initial funding year 1995-96)

PARTNERS Project (Waco)

Sam Houston CPDT (Huntsville)

South Texas CPDT (Edinburg)

Coastal Bend CPDT (Corpus Christi)

The study was conducted during the summer and fall of 1996. A 14-member advisory committee (composed of CPDT center directors and state board personnel) provided initial input and recommendations regarding the kinds of information that should be considered in the study.

The first level of data collection was intensive review of end-of-year and quarterly reports submitted by CPDT centers to the state office. Relevant information was pulled from these reports and entered in data summary forms, which in turn were sent to individual centers for verification and solicitation of more in-depth information.

Other data sources included telephone interview of a sample of school principals, written questionnaires for center directors, the state PEIMS data base accessed through the Internet, and other relevant state data bases.

Overview of CPDT Participants

The 21 CPDT centers included 35 universities, 15 Education Service Centers, and 133 school districts, affecting more than 300,000 children, 19,000 teachers, and 10,000 preservice teachers. More than one-half of the public school students (54%) was economically disadvantaged.

CPDT PARTICIPANTS	Number
School Students* (54% Economically Disadvantaged)	302,680
School Teachers*	19,077
Preservice Teachers	12,778
Professional Development Schools**	412
School Districts	113
Universities	35
Education Service Centers	15

*Counts were available for 395 of the 412 Schools.

**Professional Development Schools (PDSs) were established as field-based teacher preparation programs by CPDT centers in most or selected schools in participating school districts. While there was likely considerable variability among individual PDSs, the study did not attempt to describe the level of programming within PDSs.

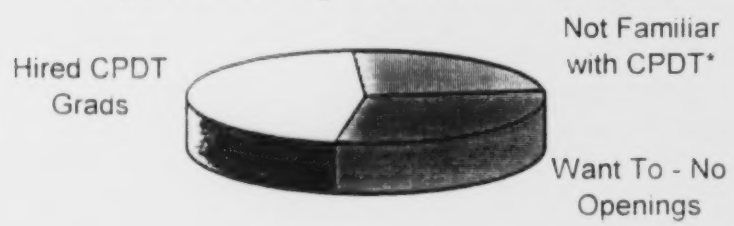
* Note that numbers reported in the Overview represent maximum counts. For example, the count of teachers included all teachers in relevant schools, but not all teachers served as mentor teachers or were involved in CPDT activities.

Consumer Satisfaction

Survey of School Principals

A sample of 50 principals (26 from PDS sites, 24 from non-PDS sites) was interviewed by telephone to determine if they had hired a CPDT graduate or graduates. The survey sample was selected "randomly" from a list of schools identified by center personnel as having probably hired one or more CPDT graduates. The vast majority (76%) had either hired one or more graduates (typically three graduates) or wanted to but did not have any vacancies. Almost all of the principals who had hired a CPDT graduate reported that the CPDT graduate was more confident, provided better instruction, and fit into the school setting better, when compared to typical first-year teachers. Principals also reported that CPDT graduates compared favorably to more experienced teachers.

Reported Hiring of CPDT Graduates

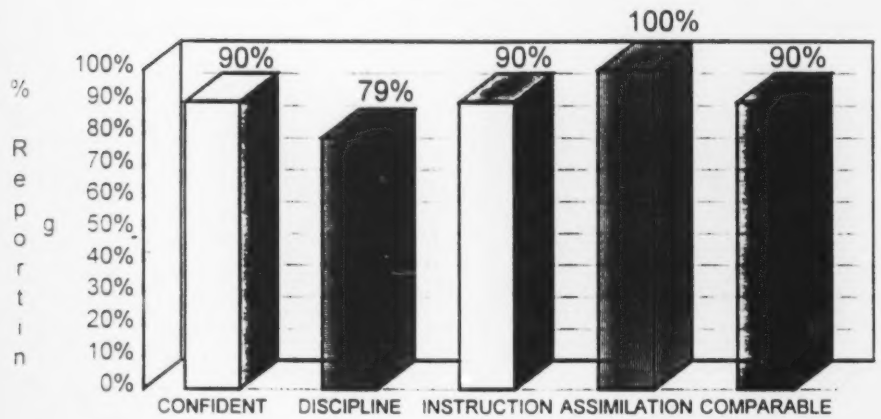


*All but one of these principals were from non-CPDT schools, and one CPDT principal was new to the school and the CPDT program.

Comments from principals who had hired CPDT graduates were very positive about the expertise of the CPDT graduates and/or about the CPDT teacher preparation program.

Consumer Satisfaction - cont.

Comparison of CPDT Graduates by Principals to Typical First-Year Teachers*



CONFIDENT	MORE CONFIDENT
DISCIPLINE	BETTER DISCIPLINE/CLASSROOM MANAGEMENT
INSTRUCTION	BETTER INSTRUCTIONAL DELIVERY
ASSIMILATION	BETTER ASSIMILATION INTO SCHOOL CULTURE/ENVIROMENT
COMPARABLE	COMPARABLE TO A MORE EXPERIENCED TEACHER

*Of the 23 principals who reported having hired CPDT graduates, 21 provided responses in terms of confidence, instructional delivery, assimilation, and comparison to experienced teachers; 19 responded in terms of discipline/classroom management. The principals who were unable to respond in terms of these specific areas still spoke positively about the CPDT graduates.

"They (CPDT graduates) are much more practical: they know what they are doing: they are able to apply theory in a real-life setting."

- Principal

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Consumer Satisfaction - cont.

Reaction of Mentor Teachers and Preservice Teachers

Reported Mentor Teacher Reaction	Percent of CPDT Centers (N=21)
Input into Evaluation of Preservice Teachers	95%
Input into University Course Instruction	90%
More Collaboration	90%
Role Model to Preservice Teachers	81%
Trained in Class Instruction/Delivery	57%
Professional Role Enhanced	48%
Member of Instructional Leadership Team	43%
Increased Ratio of Adults to Students	38%
Taught in University Preparation Class	29%

Benefits reported by PDS mentors in almost all centers (90-95%) included input into university course instruction, input into evaluation of preservice teachers, and more collaboration between universities and school district personnel. Serving as a role model to preservice teachers was also cited by most centers (81%).

Reports about preservice teachers typically noted increased confidence, professional competence, technological expertise, and enthusiasm for teaching. Many preservice teachers also noted that the field-based experience affirmed their decision to enter the teaching profession.

Restructuring Teacher Preparation Programs

Restructuring involved extensive collaborative work between universities and school districts to develop field-based programs for preparation of new teachers. Field-based preparation was designed to give the pre-service teacher extensive hands-on experience and training in real world classrooms before graduation and certification.

There was a dramatic change in the nature of university course work required for teacher preparation.

For elementary preparation, there was a ....

39% decrease in university-based course hours,

67% increase in university-based hours with field assignments,

184% increase in field-based course hours.

For secondary preparation there was a ....

73% decrease in university-based hours,

22% decrease in university-based course hours with field assignments,

142% increase in field-based course hours.

"I was skeptical before the program - fear of failure. Now I see that I can succeed. I'm very excited about teaching."

- Preservice Teacher

Restructuring Teacher Preparation Programs - cont.

Before and After
Change in University Course Credit
Median Semester Hours per University

Teacher Education Changes in Course Credit Hours (Median Values, K=28)*	University-Based Course Hours	University-Based Course Hours with Field Assignments	Field-Based Course Hours
Elementary Program			
Before CPDT Restructuring	12.25	6.30	6.17
After CPDT Restructuring	7.50	10.50	17.50
Change	-4.75	4.20	11.33
Percent of Change	**-39%**	**67%**	**184%**
Secondary Program			
Before CPDT Restructuring	11.63	4.50	6.17
After CPDT Restructuring	3.17	3.50	14.93
Change	-8.46	-1.00	8.76
Percent of Change	**-73%**	**-22%**	**142%**

*K=28 of 35 Universities

Transition to field-based course work provided opportunity for the preservice teacher to integrate theory into classroom practice. For example, within a few hours, the preservice students could have studied a particular teaching method, worked with children in a school classroom, and then analyzed the hands-on experience in discussion with a university faculty member and a school mentor teacher. Transition to field-based course work required considerable professional time and change in course content and procedures to provide this integration of theory into practice.

"After teaching one lesson, I knew I was in the right profession. I can't wait to get into teaching."

- Preservice Teacher

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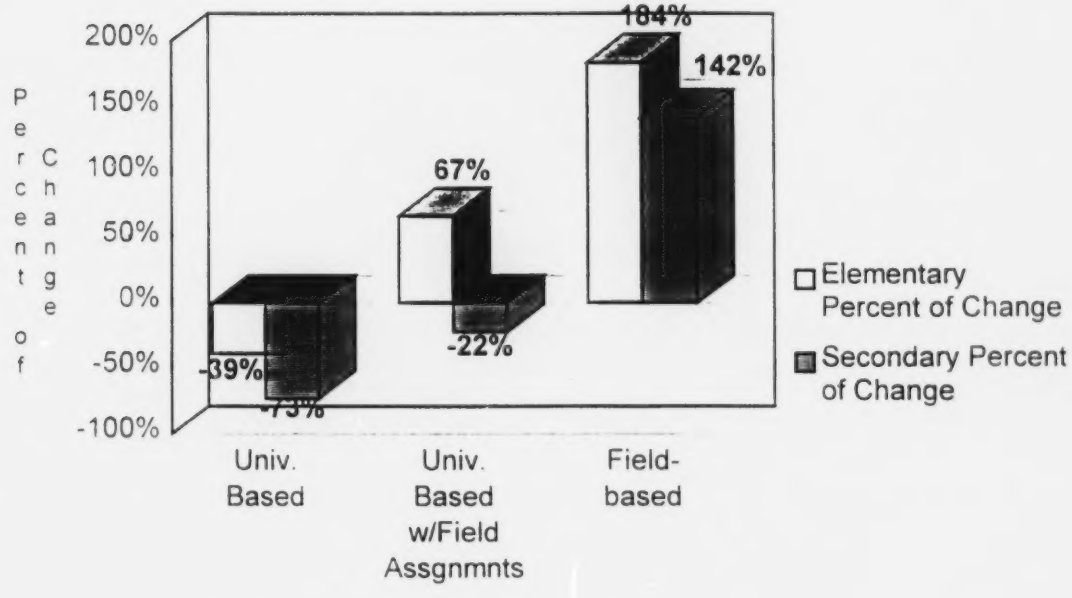
Restructuring Teacher Preparation Programs - cont.

Percent of Change in University Course Median Credit Hours



Content of field assignments in the restructured course hours included three primary facets of field experience: observation, tutoring, and/or direct instruction of students. Field assignments integrated all three facets (observation, tutoring, and direct instruction) for the large majority of credit hours: 61% at the elementary level and 75% at the secondary level (refer to graphs on following page).

"I feel I have learned so much by actually seeing the material I learn being used in the classroom."

- Preservice Teacher

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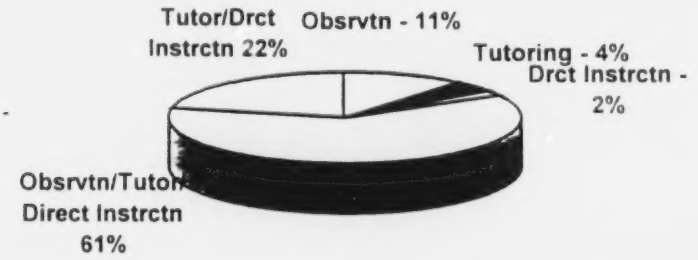
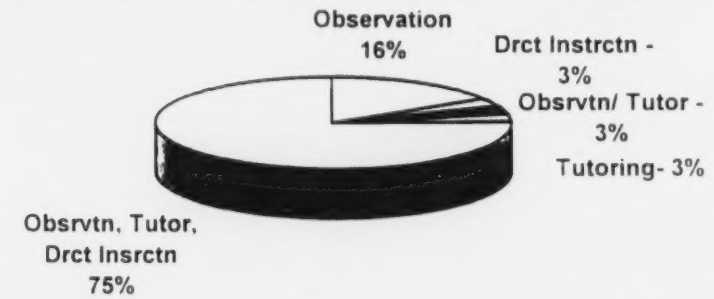
Restructuring Teacher Preparation Programs - cont.

Elementary Field Assignment Content



Secondary Field Assignment Content



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Collaboration

Collaboration between Universities and School Districts

The restructuring of teacher preparation programs promoted a tremendous collaborative effort between universities and schools. There were more than 600 formal collaborative planning/management groups reported during the 4-year study period. The average number of groups per center ranged from about 4 to 18, for any given year (in addition to these formal groups, there were reportedly many informal collaborative groups and meetings that were not given formal organizational status).

About one-third (30%) of all formal collaborative groups dealt with planning and implementing field-based teacher preparation. Special task groups (14%) included technology implementation, research and evaluation, integrating cultural diversity, grant writing, staff development, and others. A site-based management team was the most predominant type of collaborative group reported (37% of all formal groups).

Almost two-thirds (63%) of all personnel involved in the collaborative groups were school district personnel. University personnel represented about one-fourth (27%) of the participants in collaborative groups.

Percent of Total Collaborative Groups

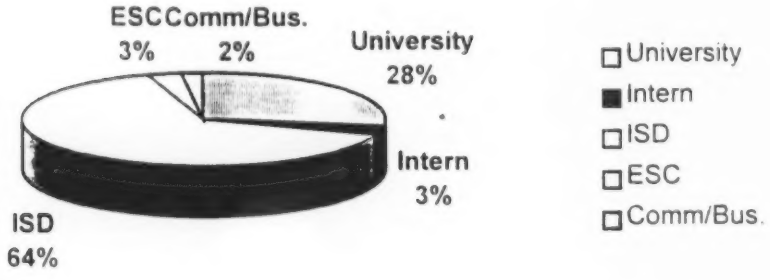
	Govern/ Advis Board	Exec. Mngmt Team	Site-Based Mngmt Team	Planning Field-Based Teacher Preparation	Special Task Groups
Cycle I	6%	11%	32%	40%	11%
Cycle II	9%	11%	47%	15%	18%
Cycle III	24%	12%	16%	16%	32%
Cycle IV	15%	12%	41%	9%	23%
ALL CYCLES	**8%**	**11%**	**37%**	**30%**	**14%**

Collaboration (cont.)

Percent of People in Collaborative Groups

Cycle	Participants				
	Univ.	Intern	ISD	ESC	Comm/ Bus.
Cycle I	24%	3%	67%	3%	4%
Cycle II	34%	6%	55%	2%	3%
Cycle III	24%		56%	9%	11%
Cycle IV	33%		54%	4%	9%
ALL CYCLES	28%	3%	64%	3%	2%

Percent of People in Collaborative Groups
All Cycles



"... made me feel like an equal when they (university personnel) asked for my input."

- Mentor Teacher

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Policies and Procedures

Restructuring of teacher preparation called for many new policies and procedures to support the collaborative, field-based teacher preparation. The study identified 47 unique policies and procedures from reports by the centers (e.g., using school district inservice days for CPDT staff development). One-half (N=23) focused on the school district environment, and one-half (N=24) on the university environment.

Continuation of policies/procedures that supported restructuring was one indicator of the vitality of the restructured field-based programs. The following graphs show the number of centers (cycles one through three, K=17) that implemented any given policy/procedure and the number of centers in which the policy/procedure was currently operative (as of December 1996).

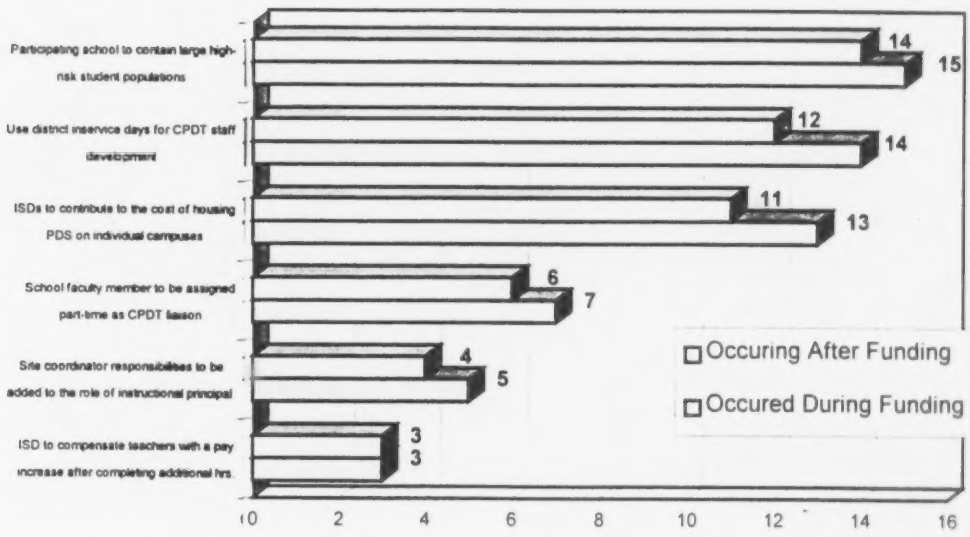
Inspection of the graphs shows generally that policies/procedures have been continued. Loss of state funding was likely a factor in discontinuation of selected policies/procedures (e.g. PDS clinical faculty hired by university to teach university course work, funding for substitutes to give mentors release time for staff development, release time for mentor teachers to plan and administrate CPDT activity, and mentor teachers given stipends for participating in CPDT program).

"They (preservice teachers) learned from the kids, things that aren't in a book."

- Mentor Teacher

Policies and Procedures (cont.)

School District Support



*Lower bar reports the number of centers who implemented the policy/procedure, and the upper bar reports the number of centers where the policy/procedure was still in force in December 1996.

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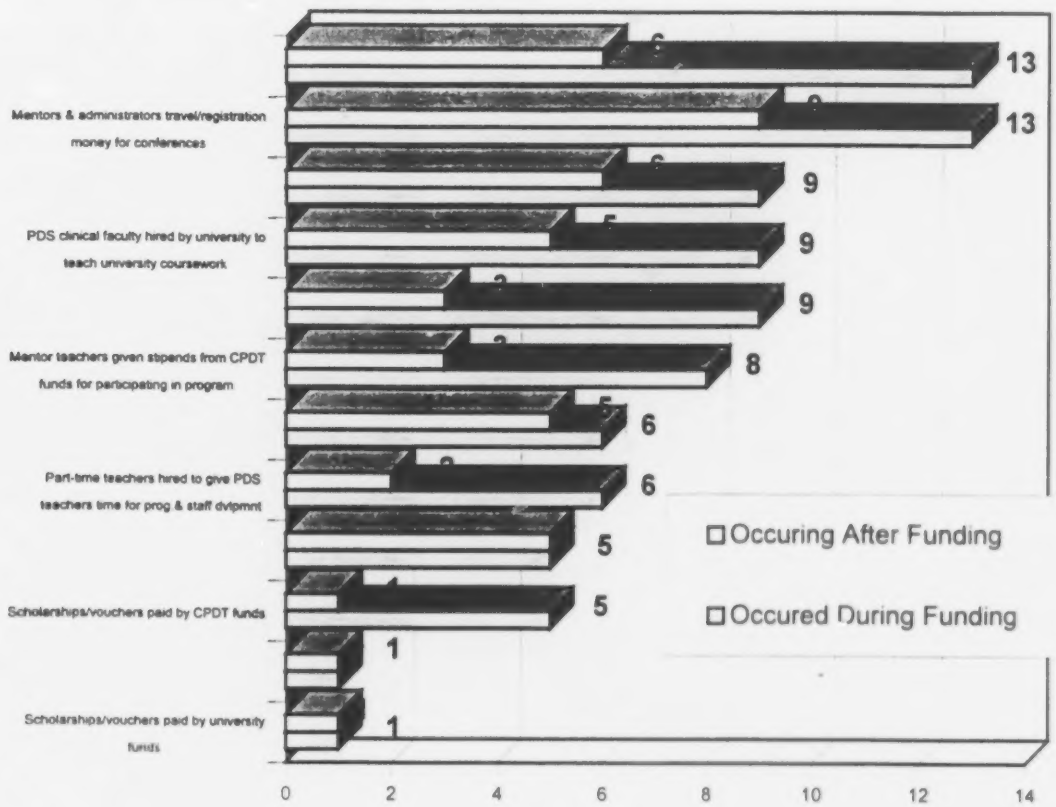
Policies and Procedures (cont.)

BENEFITS PROVIDED TO PUBLIC SCHOOLS



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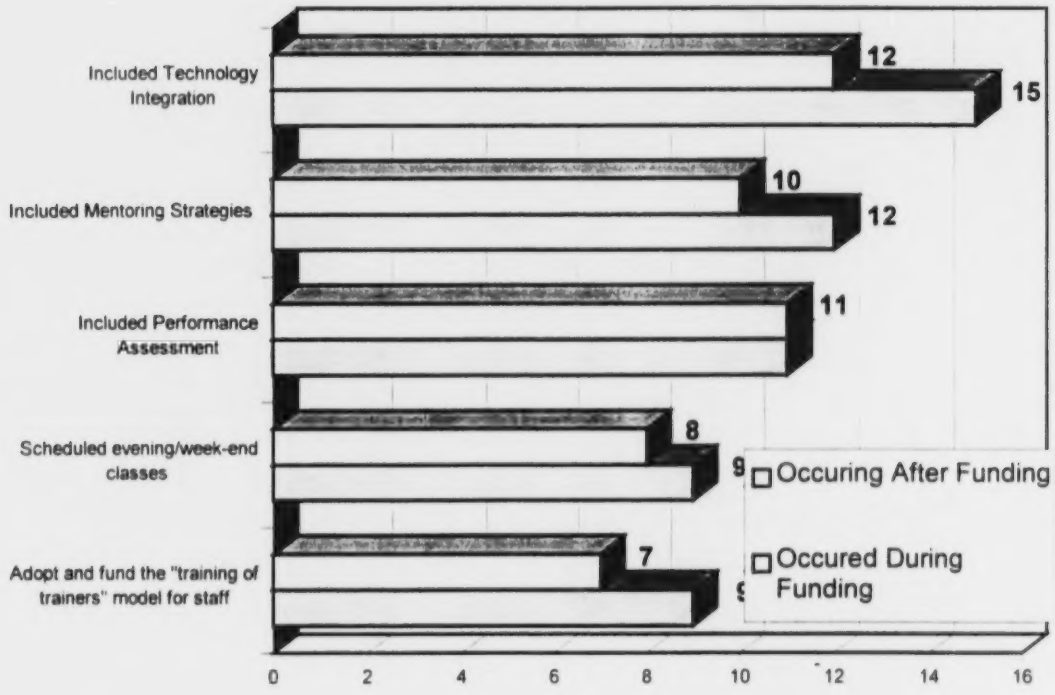
Policies and Procedures (cont.)

Staff Development



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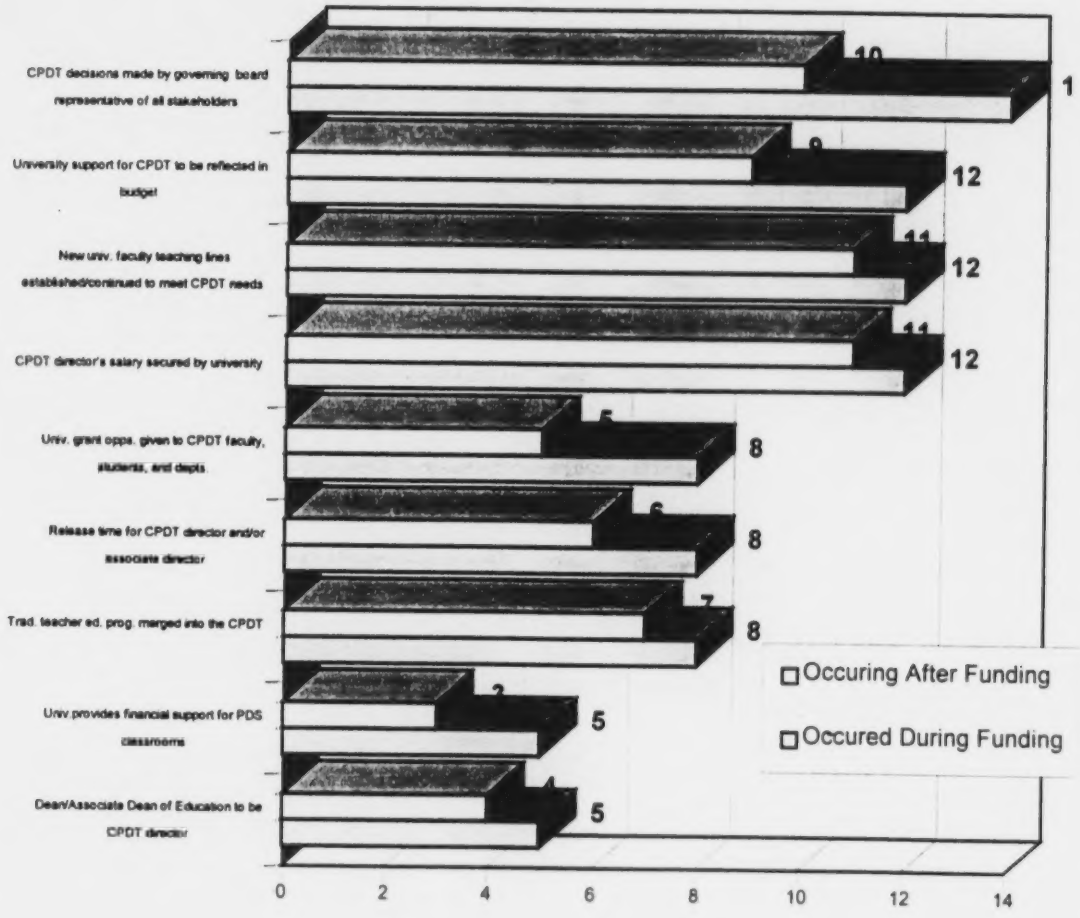
Policies and Procedures (cont.)

University Support



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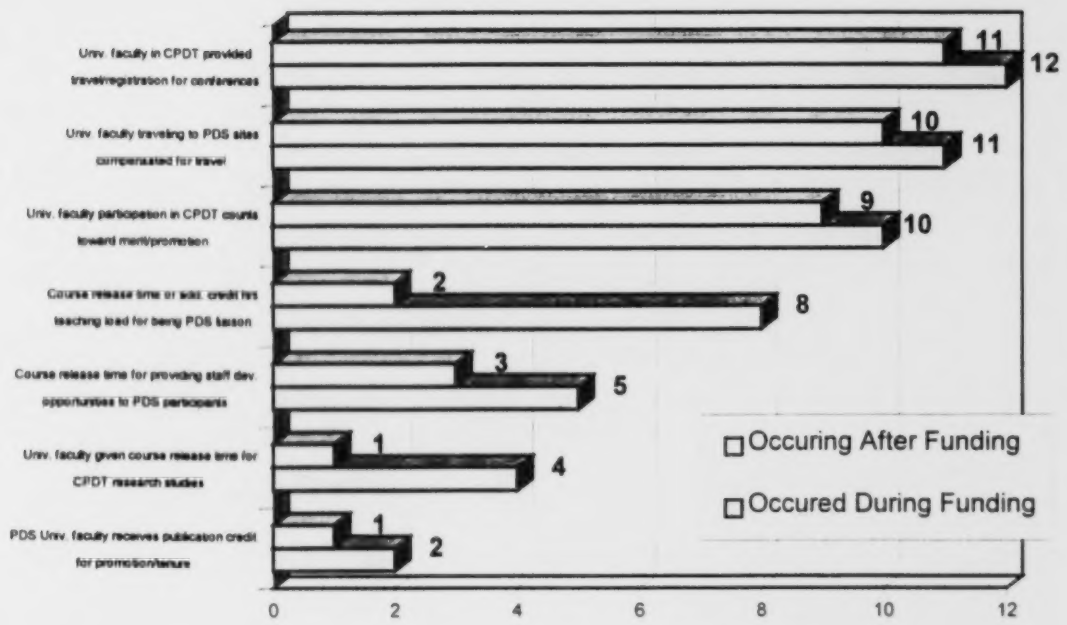
Policies and Procedures (cont.)

University Faculty Benefits



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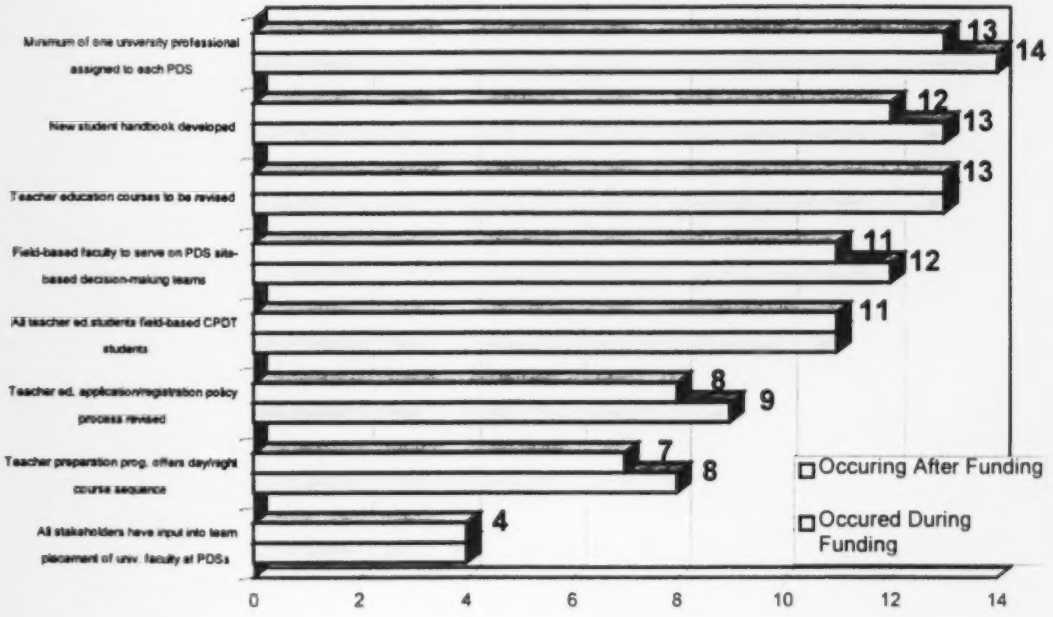
Policies and Procedures (cont.)

Field-Based Efforts



"I know that when (identified a specific university) students complete their university course work, they are better prepared than ever before to become excellent teachers at an early stage of their professional careers."

- Mentor Teacher

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Minority Recruitment

CPDT centers exerted considerable effort toward recruiting ethnic minorities into the teaching profession. A large majority of centers provided scholarships to minority students (81%), recruited high school students (76%), provided work-study programs (67%), provided tutoring and instructional support (67%), and developed recruiting pamphlets/brochures (62%).

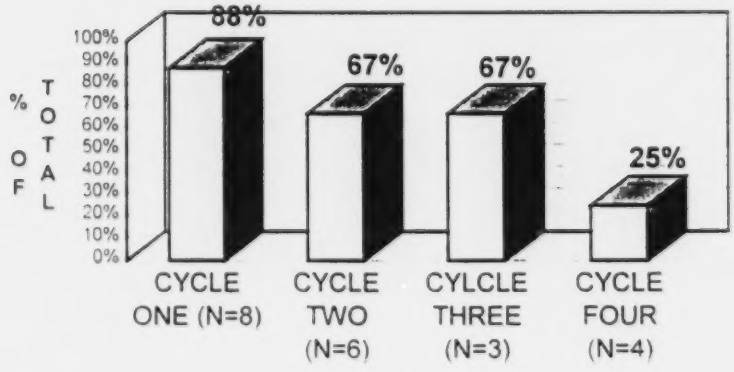
Types of Minority Recruitment	Percent of CPDT Centers (N=21)
Scholarships	81%
High School Recruitment	76%
Work-Study Programs	67%
Tutoring/Instructional Support	67%
Pamphlets/Brochures	62%
Certification of Minority Paraprofessionals	43%
Counseling	38%

Institutionalization

Successful restructuring of teacher preparation programs will ultimately lead to institutionalization of collaborative, field-based preparation. The definition of institutionalization in the current study was that 100% of the center's teacher preparation students (i.e., preservice teachers) were enrolled in the CPDT collaborative, field-based program.

Overall, 67% of all centers were found to have "institutionalized" the CPDT teacher preparation program. As expected, the rate was somewhat higher for cycle one centers and much lower for cycle four centers. The rate for centers in cycles one, two, and three was 76%.

PERCENT OF CENTERS WITH
"INSTITUTIONALIZED" PROGRAM



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Estimated Patterns of ExCET Performance

The Professional Development Tests of the ExCET (Examination for the Certification of Educators in Texas) was another indicator of expertise of preservice teachers. The Professional Development tests "cover pedagogical and professional knowledge and skills that are common to all subject areas."

The scope of the study did not permit collection of ExCET scores for individual preservice teachers. However, ExCET results for individual universities were available from state computer files. Due to transition from traditional teacher preparation programs to restructured CPDT programs, scores available from CPDT universities included an unknown number of students who were still in traditional teacher preparation. Inclusion of non-CPDT students was likely more prevalent in 1993-94 than in 1995-96, because institutionalization had progressed further by 1995-96 (comparisons before 1993-94 were not possible due to extensive revision in the ExCET).

Comparison of ExCET scores from CPDT universities (i.e., those participating in a CPDT collaborative center) with non-CPDT universities (i.e., the remaining universities in the state) provided one estimate of the potential pattern of ExCET performance between CPDT and non-CPDT students. One should note that this approach provided a conservative estimate of performance of CPDT students, since the inclusion of non-CPDT students in the CPDT group would restrict measurement of any potential superior performance by CPDT students.

Comparison of passing rates of first-time test takers in CPDT and non-CPDT Universities found differing patterns by ethnic group. Years included were 1993-94, 1994-95, and 1995-96.

Estimated Patterns of ExCET Performance - cont.

Anglo student groups (whether CPDT or non-CPDT university) had basically the same passing rate (about 91%) for all three years (possibly due to the inclusion of non-CPDT students in the CPDT group or to a ceiling effect).

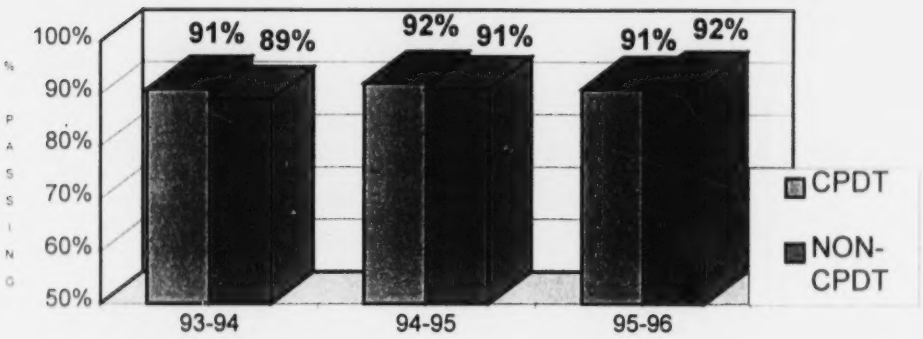
Passing rates of African-American student groups from non-CPDT universities were constant (about 67%) across all three years. However, passing rates for African-American groups from CPDT universities varied across years (63%, 71%, and 60%).

Passing rates of Hispanic student groups from CPDT universities were consistently higher than those of Hispanic groups from non-CPDT universities (about 73% compared to about 64%).

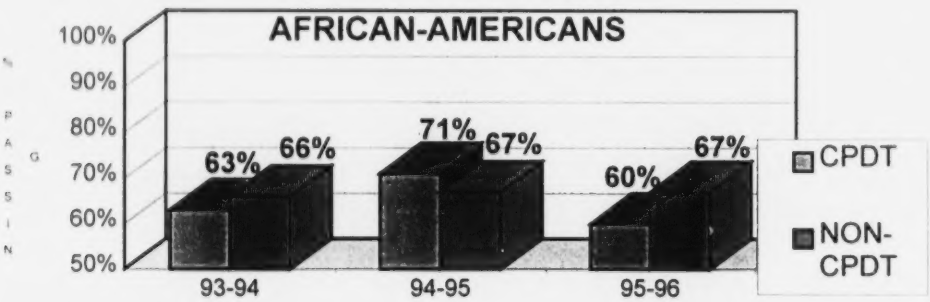
There was no immediate explanation for differences in the estimated patterns of ExCET performance between CPDT and non-CPDT groups. Inspection of TASP score averages (passing score on the TASP is required before entry into teacher preparation) indicated that all CPDT and non-CPDT student groups were very comparable prior to enrollment in teacher preparation programs. Results may suggest that Hispanic students do better in a CPDT program, but similar results for African-American students were mixed (at least, as measured by the ExCET). More definitive conclusions depend upon in-depth investigation.

Estimated Patterns of ExCET Scores for CPDT and Non-CPDT Groups
Average Passing Rate by Ethnic Groups

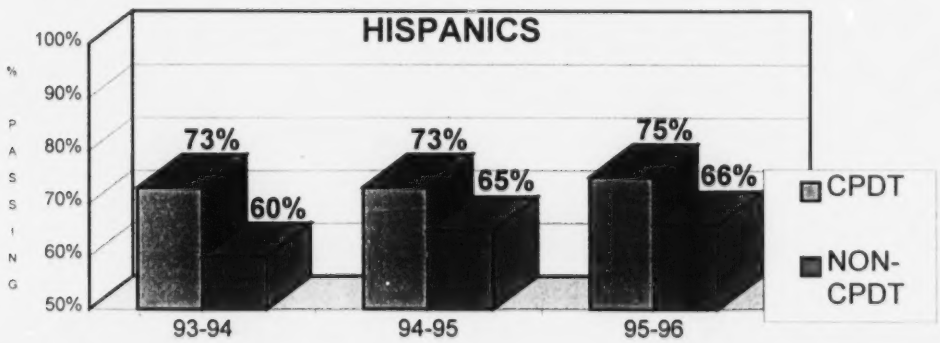
ANGLOS



1993=94: CPDT N=4,931, Non-CPDT N=3,232; 1994-95: CPDT N=4,594, Non-CPDT N=2,988; 1995-96: CPDT N=5,811, Non-CPDT N=3,656.



1993=94: CPDT N=313, Non-CPDT N=134; 1994-95: CPDT N=265, Non-CPDT N=133; 1995-96: CPDT N=420, Non-CPDT N=210.



1993=94: CPDT N=794, Non-CPDT N=1,054; 1994-95: CPDT N=905, Non-CPDT N=982; 1995-96: CPDT N=1,282, Non-CPDT N=1,168.

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Professional Development Training

The CPDT centers provided a tremendous amount of professional development training. Total attendance at the more than 6,000 scheduled professional development sessions during the 4-year study period was more than 120,000 participants (note that "participants" is a duplicated count of individuals). Over 14,000 individual classroom teachers received training during the four years. School administrators, university faculty, and preservice teachers also participated in professional development. The average cost of training per person per session was $28, and more than $3 million dollars were spent on professional development.

Professional Development Events (Totals)	**Total** PD Sessions	**Total** Attendance in All PD Sessions**	**$$ Spent** on Professional Development	Average Cost of PD Sessions	Average Attendance	Average Cost Per Person
1993-94 (K=13)	1,644	41,060	$1,114,016	$677.63	25	$27.00
1994-95 (K=16)	2,636	37,157	$1,166,991	$442.71	14	$32.00
1995-96 (K=19)	1,928	42,051	$1,015,997	$526.97	22	$24.00
CUMULATIVE (K=21)	6,208	120,268	$3,297,004	$531.09		
***AVERAGE (K=21)**	296	5,727	$157,000.18	$531.09	19	$28.00

*Average (K=21) based on cumulative

**A total of 14,436 individual teachers (based on the highest quarterly report during a Center's duration) attended professional development during the 4-year period; other participants included school administrators, university faculty, and preservice teachers.

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Professional Development Training - cont.

Content of professional development sessions included the following broad topics.

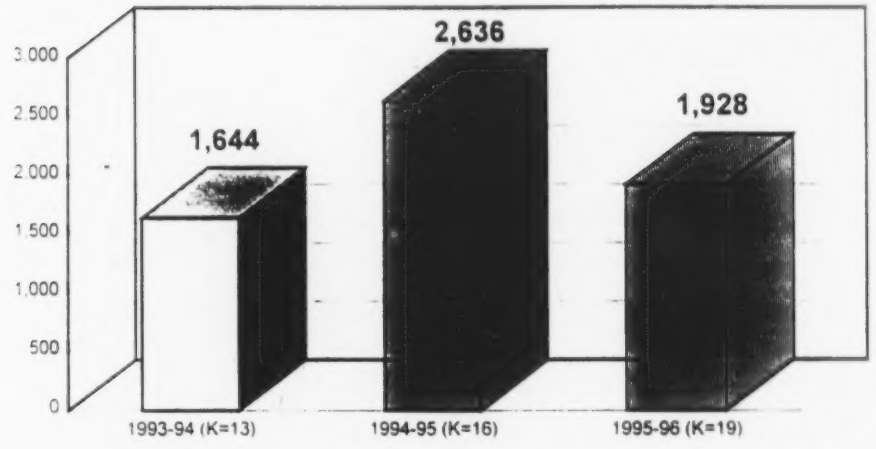
Professional Development Topics	Count	Percent
Technology	221	41%
Learning Strategies	73	14%
Leadership/Collaboration	41	8%
Classroom Management/Discipline	40	7%
Subject Matter Content	38	7%
Diversity/Inclusion	35	7%
Curriculum/Assessment	34	6%
Mentoring	27	5%
Other	27	5%

"Professional development was no longer a hum-drum experience."
- Center Director

"For the first time in my life, I felt like a real professional."
- Mentor Teacher

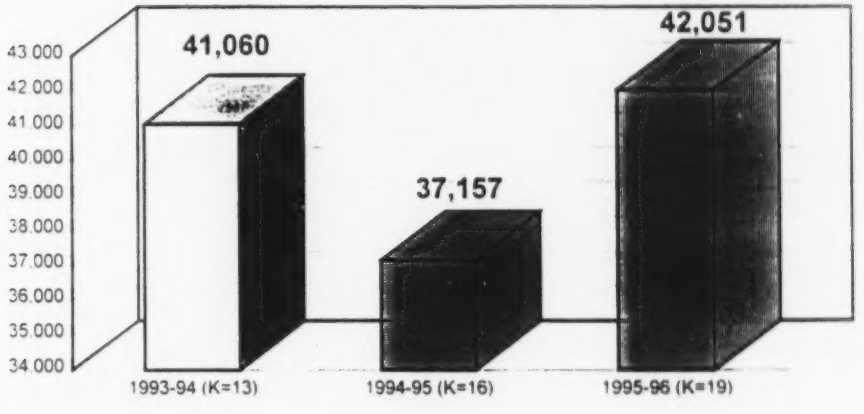
Professional Development Training - cont.

Number of Professional Development Sessions*
(Total = 6,208)



*Estimated length of average session was 2.25 hours.

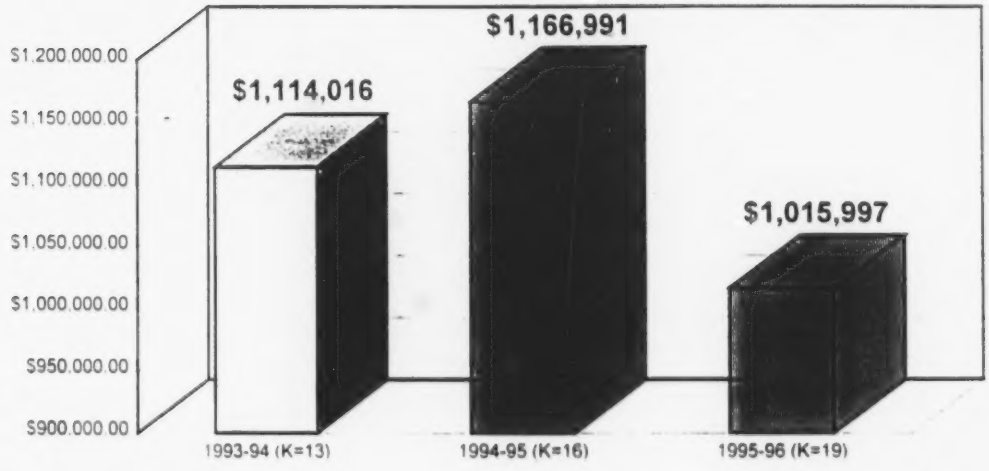
Total Attendance in Professional Development Sessions
(Total = 120,268)



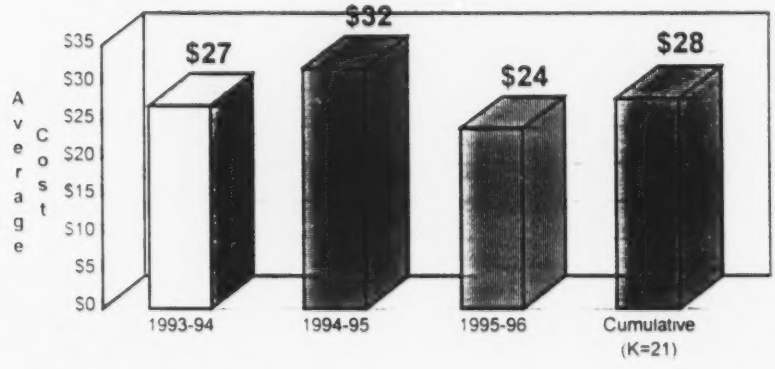
Professional Development Training - cont.

Money Spent on Professional Development Sessions

Cumulative Total = $3,297,004
Cumulative Average per Center = $157,000



Average Cost Per Person Per Professional Development Session



Technology Training

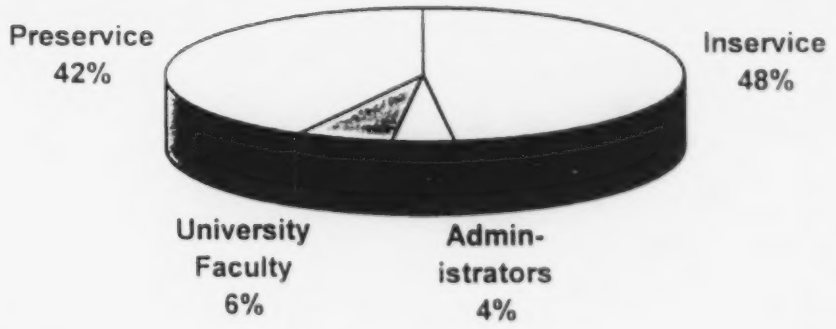
The centers provided technology training to almost 17,000 educators, including more than 8,000 classroom teachers, 7,000 preservice teachers, 900 university faculty, and 650 school administrators.

Professional Development (K=21)	Inservice Teachers	Administrators	University Faculty	Preservice Teachers	Technology Total
Number Trained*	8,094	684	931	7,022	16,731
Percent of Total	48%	4%	6%	42%	

*Based on highest quarterly report.

Percent Trained in Technology

(N=16,731)



"Our teachers eagerly learned how to use the interactive programs...and we learned to 'surf the Internet.'"

- Center Director

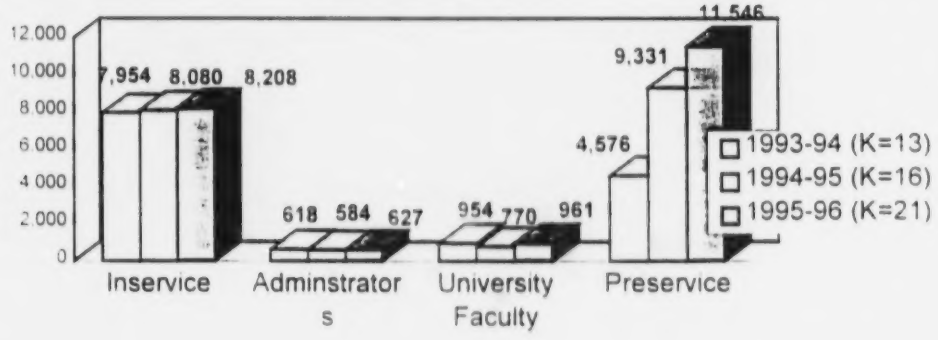
Technology Training - cont.

Total attendance in technology training was more than 54,000 participants (note that "participants" is a duplicated count of individuals).

Total Attendance in Technology Training

People Trained in Technology	Inservice	Administrators	University Faculty	Preservice	Total
Number:					
1993-94 (K=13)	7,954	618	954	4,576	14,102
1994-95 (K=16)	8,080	584	770	9,331	18,765
1995-96 (K=21)	8,208	627	961	11,546	21,342
Percent:					
1993-94 (K=13)	56%	4%	7%	32%	
1994-95 (K=16)	43%	3%	4%	50%	
1995-96 (K=21)	43%	3%	4%	50%	
Overall Average	45%	3%	5%	47%	

CUMULATIVE NUMBER OF PEOPLE TRAINED IN TECHNOLOGY
(TOTAL = 54,209)



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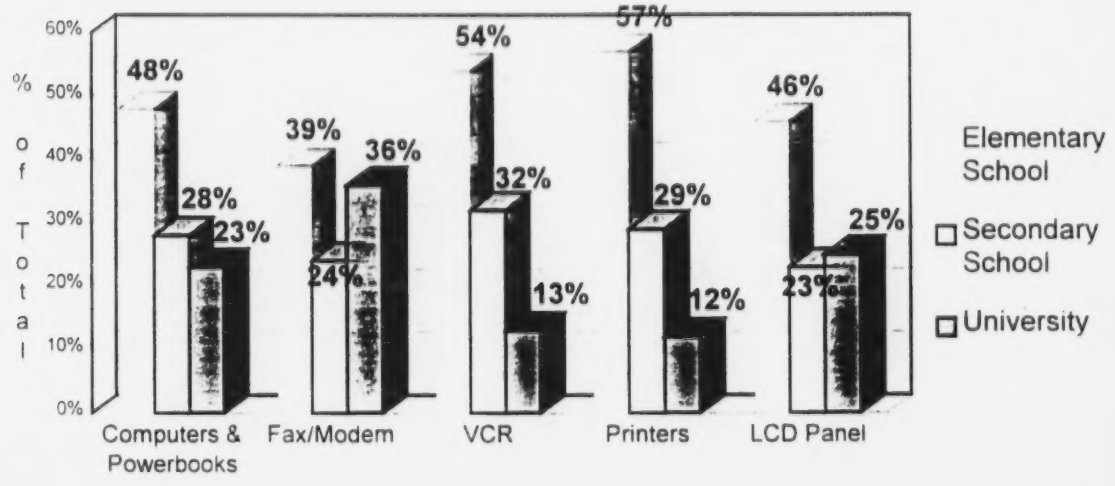
Installation of Technology

The CPDT centers purchased and installed extensive computer hardware and software. Hardware included multi-media stations, fax/modems, local area networks, video equipment, printers, scanners, laser discs, LCD display panels, and distance learning facilities. Software included a wide variety of applications in many subject areas.

About one-half (48%) of the 4,432 computer stations was installed in elementary schools, and about one-fourth was installed in secondary schools (28%) and universities (23%). About three-fourths of the computer stations (76%) were installed in public schools, rather than universities.

Selected Hardware Installation by Institutional Level



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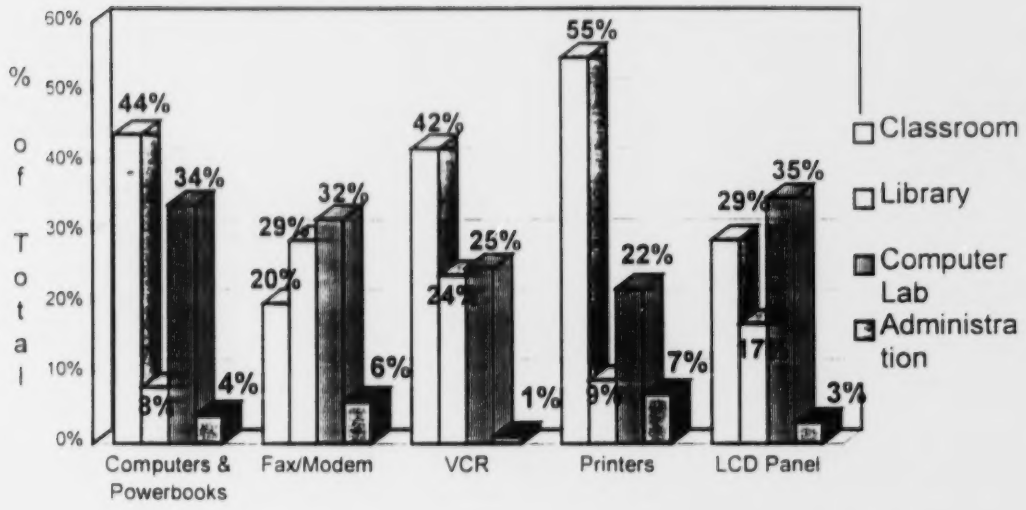
Installation of Technology - cont.

Location of Selected Equipment Items for All Centers



The above graph shows that computer hardware was generally installed in classrooms, labs, and libraries.

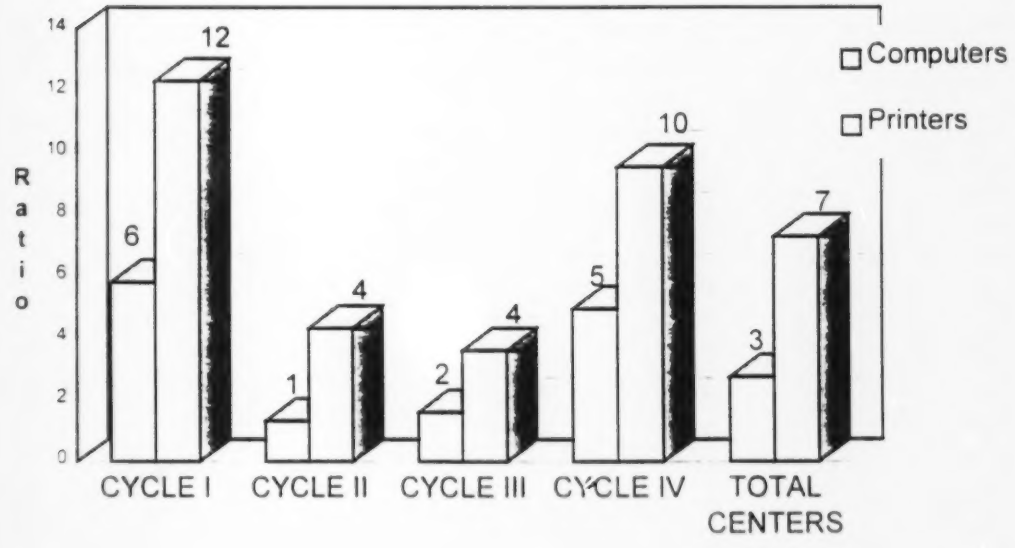
"The low-achieving kids participated more with the computer in class. It kept their attention better and broke down the social dynamics that inhibited them."

- Mentor Teacher

Installation of Technology - cont.

Computer hardware was installed by the CPDT centers in 63% of the PDS sites (i.e., schools). In schools with CPDT hardware installations, there were about three teachers (2.75) for every computer, and about seven teachers for every printer (7.30). The teacher-to-computer ratio was less intense in cycle one centers (5.82) and more intense in cycle two and three centers (less than two teachers per computer). A number of the centers installed distance learning facilities, which required considerable expenditure.

Ratio of Teachers to Equipment



Using Technology

Installed technology was used by teachers and students in a variety of ways, and all centers reported that their efforts had assisted school districts in moving more rapidly into advanced technologies.

Teachers primarily used technology for lesson planning, record keeping, developing instructional materials, accessing information, and communication.

Students primarily used technology to develop special reports and presentations in a variety of subject areas, to communicate with students in other parts of the world, and to access information data bases. Both teachers and students used technology in a wide variety of ways and subject areas.

"The group was even more eager to learn with technology. They were especially excited about coming up with their own things to do."

- Mentor Teacher

Using Technology - cont.

Percent of Centers Using Technology	Reported Use of Technology in CPDT Sites
100%	Centers Helped ISDs Move More Rapidly into Advanced Technologies
100%	Teachers Using Technology for Administrative Support (Grade Book, Lesson Planning, etc.)
100%	Public School Students Using Multimedia Applications (Projects, Reports, Presentations)
95%	Telecommunications Used to Access Information and Communicate with Other Sites
95%	Preservice Teachers Integrate Technology in Their Course Assignments
90%	Preservice Teachers Use Technology in Lesson Planning
85%	Teachers Use Telephones for Modem Connects, Parent Communication, etc.
85%	Public School Students Using Telephones for Modem Connects
65%	Distance Learning Used on Regular Basis

The following pages present selected examples of technology use, as reported by individual CPDT Centers.

Specific Examples of Technology Use

By Public School Students

- Fifth graders e-mailed people in Los Angeles the morning after the earthquake and received immediate answers to questions about what it was like to be in a quake.

- Middle school students conducted a group study of immigration and developed a multimedia report that was presented to the state legislature.

- Sixth grade social studies class engaged in year-long project on world history and culture; using advanced technology to complete projects and conduct an exhibition for entire school, parents, and community.

- Students at one site learned about careers through compressed video sessions with scientists and other professionals.

- Used HyperCard stacks to develop science projects and used graphic display software and LCD panels to present to their classmates.

- Summer school students at two middle schools demonstrated interactive video capabilities to local newspapers and TV stations at a technology open house.

- A first grade bilingual class used computers to produce Hyperstudio stacks, and another developed and published its own newsletter.

Specific Examples of Technology Use - cont.

By Public School Students (cont.)

- Children completed the National Geographic's Kids Net program in which they collected real-life data about acid rain and trash, exchanged data with other children around the world, and then drew conclusions based on their data.

- Fifth graders take part in Science-by-Mail and telecommunicate with professionals in the business and university communities.

By Preservice Teachers

- Multimedia presentations developed as instructional aids for teaching geometry, writing, Spanish, math, grammar and history.

- Took part in interactive video teleconferences to share information, to conduct meetings, and to see demonstrations.

- Use Hyperstack for presentations, e-mail, ClarisWorks, CD-ROM, KidsWork, word processing, and problem solving via First Class system.

- Used their technology skills to create lesson plans, track student grades, and create instructional handouts.

- Access TENET to gather information for special projects and assignments.

Specific Examples of Technology Use - cont.

By Preservice Teachers (cont.)

- Interns use laptops with modems and prepared classroom materials via computer.
- Interns use e-mail, multi-media presentations, and videotape material for inclusion in their portfolios.

By Teachers

- Teachers are using e-mail, TENET, Internet and Compressed Video.
- Every PDS has designed lesson plans that integrate multimedia technologies into math, science, and social studies, including all grade levels.
- One high school history teacher used technology to have students produce a newsletter about the French Revolution.
- At one school the network file serve contains CD-ROM titles that can be accessed by every classroom in the school.
- All teachers used laptop computers to prepare class materials and record student grades.
- Teachers have begun to use Level 3 laser disc technology to create instructional presentations.
- Used videotape to document portfolio collections of children.

Specific Examples of Technology Use - cont.

By Teachers (cont.)

- Teachers used their computer training to teach children and parents in an after school program.
- Teachers use Distance Learning equipment to conduct classes and share projects and information.
- Conduct summer technology institutes for Gifted and Talented students.

"There was a lot of partner work at the computers which helped the limited English kids, especially with vocabulary."

- Mentor Teacher

Professional Leadership of Teachers

Teachers in CPDT centers played leadership roles in the teaching profession. Numerous teachers presented staff development sessions, as well as information/training sessions at regional and national conferences.

Additionally, many teachers were involved in professional advancement activity.

Number of Centers Reporting	Number of Personnel	TYPES OF PROFESSIONAL ADVANCEMENT
15	400*	Taking Graduate Courses/Pursuing Master's degree
4	12*	Pursuing/Completed doctoral degree
4	40*	Taking Courses for Administrator Certification
4	8*	Became ISD Administrator
2	5*	Joined Educational Service Center Staff
2	2	Became CPDT Director
1	2	Became CPDT Technology Specialist

*Estimated values; directors did not always have access to precise numbers.

"I went from being just a teacher to a professional educator. I will never accept being JUST A TEACHER again."

- Mentor Teacher

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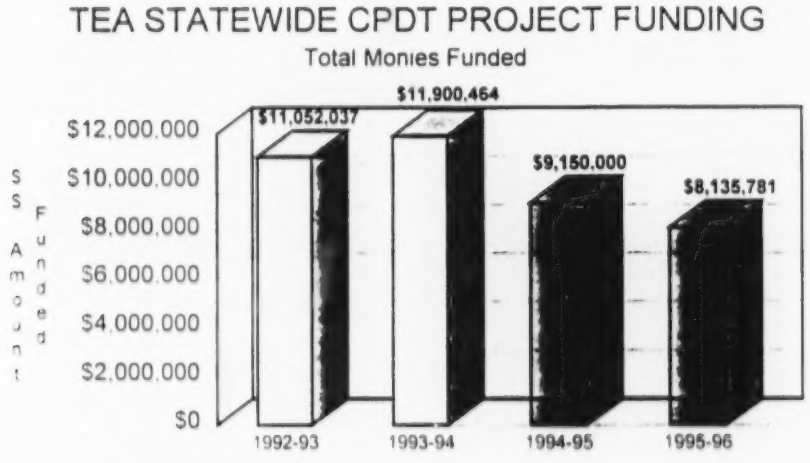
CPDT Investment

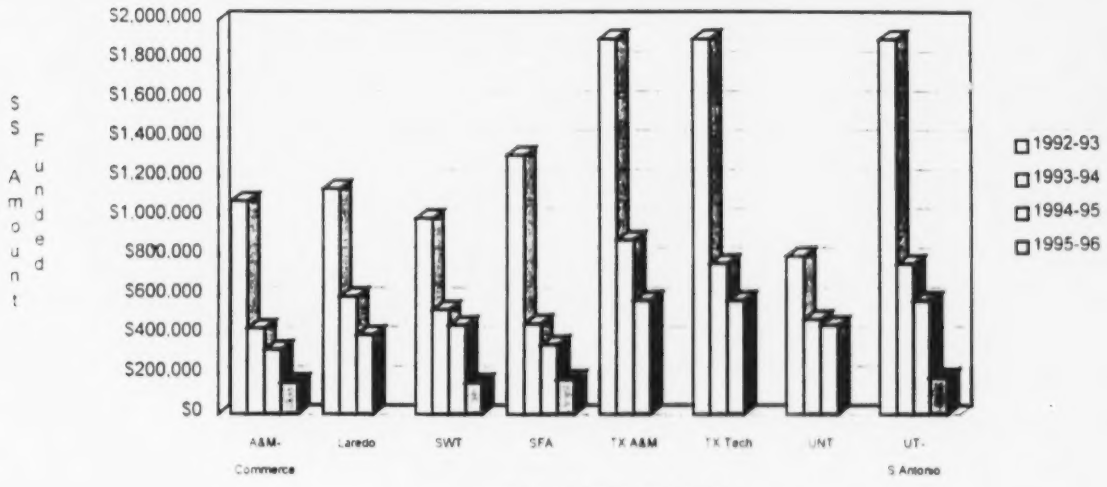
Texas invested about 40.2 million dollars in the 21 CPDT centers funded from 1992-93 through 1995-96. Individual centers received about one to two million dollars for the startup year, and then state funding decreased to little or no money by the final year of each center's funded cycle with universities and their partner schools assuming program costs.



The following tables present annual funding for each of the centers.

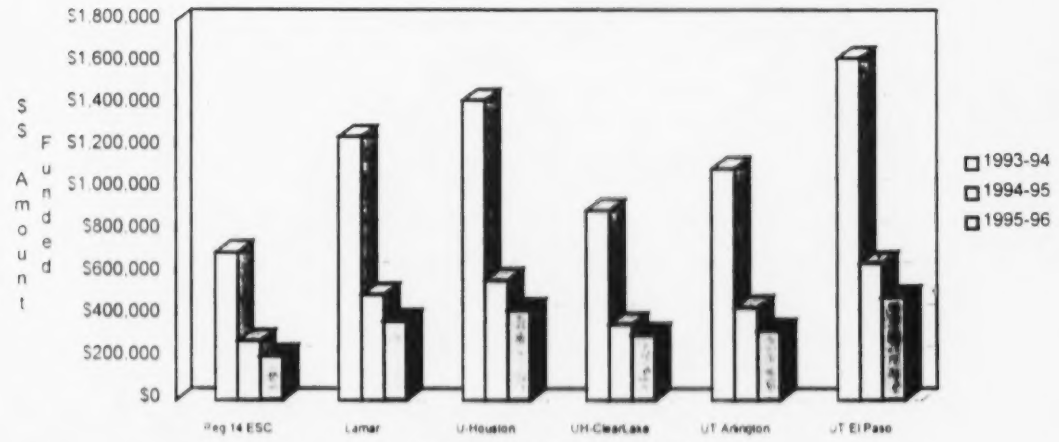
CPDT Investment - cont.

TEA STATEWIDE CPDT PROJECT FUNDING
CYCLE ONE - 1992-1996



CYCLE ONE CPDT CENTERS

TEA STATEWIDE CPDT PROJECT FUNDING
CYCLE TWO 1993-1996



CYCLE TWO CPDT CENTERS

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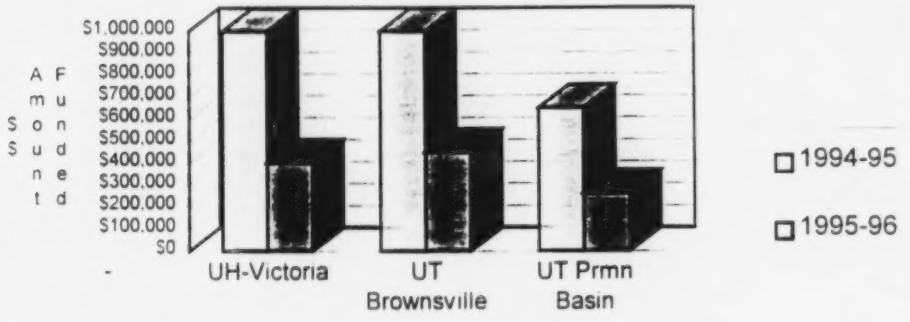
CPDT Investment - cont.

TEA STATEWIDE CPDT PROJECT FUNDING

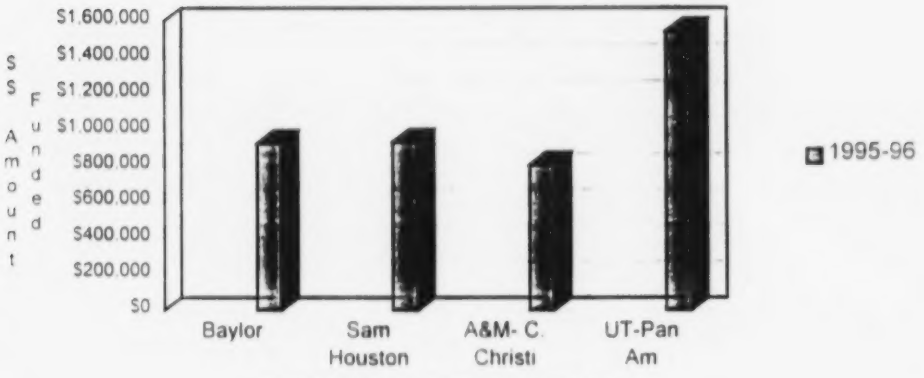
CYCLE THREE 1994-1996



CYCLE THREE CPDT CENTERS

TEA STATEWIDE CPDT PROJECT FUNDING

CYCLE FOUR 1995-96



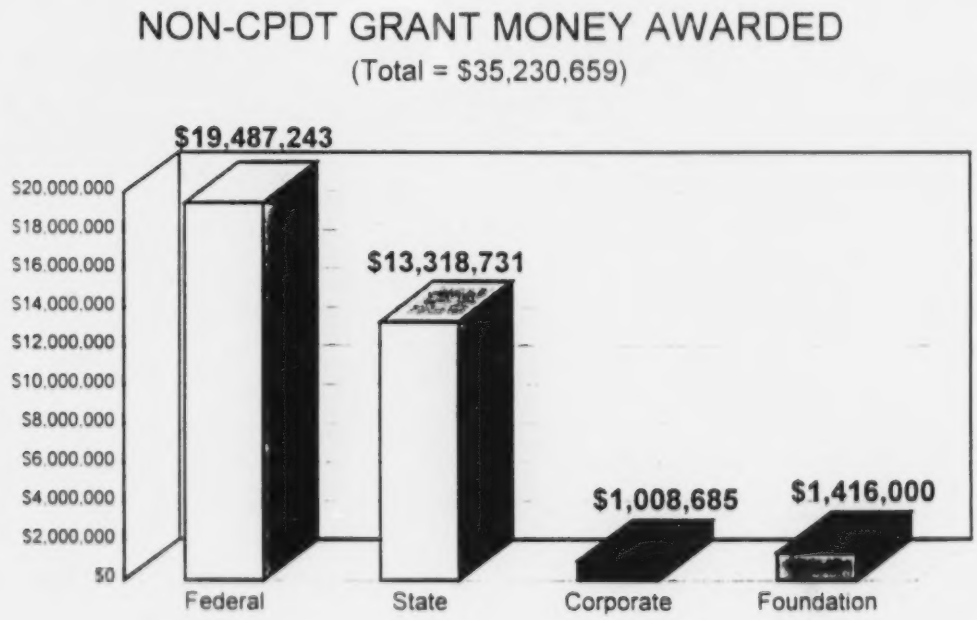
CYCLE FOUR CPDT CENTERS

Note: Selected CPDT centers included multiple universities.

Additional Financial Grants

The CPDT centers (or education programs of the hosting universities) received additional financial grants totaling 35.2 million dollars, 88% of the original 40.2 million invested in the 21 CPDT centers.

Of the 35.2 million received in additional grants, 21.9 million was funded by the federal government or the private sector (corporations and foundations). Hence, almost two-thirds (62%) came from sources OTHER THAN state tax revenues.



Business Partnerships

Partnerships with the business community were evident in the centers studied. The study did not provide clear information about the success of these partnerships.

Centers reported a total of 121 business partners (67% were commercial partners, 33% were nonprofit). Support provided by business partners was most frequently in the areas of public relations (by 63% of the partners) and leadership/management (66%). About 27% of the partners provided monetary support, and 17% provided technological support.

Cycle one and two centers reported typically having four and three business partners, respectively, but cycle three and four centers reported typically having two and one partner. This suggested decreased emphasis on business partners.

Areas for Special Consideration

The study identified three areas for special consideration: 1) continued institutionalization, 2) distance learning, and 3) ExCET passing rates.

- While the purpose of the study was not to evaluate individual centers, data collection efforts identified two or three centers whose future appeared undecided. Additionally, movement toward total institutionalization of centers appeared stronger for some centers than for others. This was no doubt related in some ways to discontinuation of state funding for selected centers. Analysis of policies and procedures, reported previously, also cast some question on future institutionalization.

- Selected centers (primarily cycle one centers) put considerable effort into establishing distance learning facilities. However, results suggested that DL had generally not reached its potential in CPDT centers. It was thought that the task of restructuring consumed so many resources that personnel could not adequately address DL, while attempting to restructure teacher preparation programs.

- Estimated patterns of ExCET performance (presented in a previous section) called attention to a possible need for in-depth study of ExCET scores. Passing rates for the Professional Development portion of the ExCET for both African-American and Hispanic student groups were notably lower than for Anglo student groups (regardless of CPDT or non-CPDT). While passing rates of Hispanic student groups in CPDT Universities were consistently higher than those in non-CPDT Universities, passing rates of African-American student groups were mixed.